

ABSTRACT OF THE DISCLOSURE

A packet classification apparatus and method using field level tries includes a main processing part for generating and maintaining the field level tries, which organize a multi-field packet by field in a hierarchical structure for classifications; and classification engines, each of which is provided with a first classification part for performing queries and updates and processing a prefix lookup represented by an IP source/destination address lookup, and a second classification part for proceeding with classifications by corresponding field based on a result of the first classification part in order to process a range lookup belonging to the result. Accordingly, tries in the unit of a field are developed so that packet classifications for high-speed networking with excellent query performance are secured, and wherein approximately a half-million classifier rules can be processed.